

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

SORRELLS *et al.*

Appl. No.: 09/770,675

Filed: January 29, 2001

For: **Wireless and Wired Cable Modem
Applications of Universal
Frequency Translation Technology**

Confirmation No.: 5430

Art Unit: 2685

Examiner: Tran, Pablo N.

Atty. Docket: 1744.0140005

Second Supplemental Information Disclosure Statement

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Second Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Supplemental Information Disclosure Statement filed on November 20, 2003 in connection with the above-captioned application.

In addition to providing hard copies of the documents as required by applicable rules (see box 7 below), Applicants herewith provide a Compact Disc labeled "Disc 3" having stored thereon searchable electronic copies (in PDF format) of the documents listed on the PTO-1449. More specifically, the CD contains electronic copies of documents AL23, AH55, AI55, AA56-AI56, AA57-AI57, AA58-AI58, AA59-AI59, AN59-AP59, AA60-AI60, AA61-AI61, AA62-AI62, AA63-AI63, AA64-AI64, and AA65-AD65. In addition, the CD also contains electronic copies of documents AM13, AJ14-AM14, AJ15-AM15, AJ16-AM16, AJ17-AM17, AJ18-AM18, AJ19-AM19, AJ20-

AM20, AJ21-AM21, AJ22-AM22, AJ23, AK23, AC46-AI46, AA47-AI47, AA48-AI48, AA49-AI49, AB50-AI50, AA51-AI51, AQ51, AR51, AA52-AI52, AN52-AR52, AA53-AI53, AN53-AR53, AA54-AI54, AN54-AR54, AA55-AG55, AN55-AR55, AN56-AR56, AN57-AR57, and AN58-AR58, all of which were cited in the present application in previous Information Disclosure Statements. The file names on the CD correspond to the identifiers on the PTO-1449 forms. It is noted that the CD is being provided in addition to hard copies of the documents for the convenience of the Examiner.

Applicants note that the Examiner has not initialed and returned copies of the Form PTO-1449 that accompanied the Information Disclosure Statement filed on August 16, 2002, and the Form PTO-1449 that accompanied the Supplemental Information Disclosure Statement filed on November 20, 2003. It is respectfully requested that the Examiner initial and return a copies of these Forms, and indicate in the official file wrapper of this patent application that the documents have been considered. For the convenience of the Examiner, a copy of the Information Disclosure Statement and Form PTO-1449, as filed on August 16, 2002, and a copy of the Supplemental Information Disclosure Statement and Form PTO-1449, as filed November 20, 2003, are submitted herewith.

Applicants have listed publication dates on the attached Form PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may

not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

Applicants provide the following comments regarding the documents:

Documents AL23, AG56-AI56, AO59, and AF61 were cited in an Office Action in related U.S. Patent Application No. 09/669,634, filed September 26, 2000, entitled "High Frequency Translator and Method of High Frequency Translation," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 6,049,706; 6,421,534; and 6,560,301, which have already been cited in the present application.

Documents AH55 and AI55 were cited in an Office Action in related U.S. Patent Application No. 10/317,181, filed December 12, 2002, entitled "Differential Frequency Down-Conversion Using Techniques of Universal Frequency Translation Technology," directed to related subject matter.

Documents AA55 and AB56 were cited in an Office Action in related U.S. Patent Application No. 10/317,165, filed December 12, 2002, entitled "Method and Apparatus for Reducing DC Offsets in Communication Systems Using Universal Frequency Translation Technology," directed to related subject matter.

Documents AC56 and AN59 were cited in an Office Action in related U.S. Patent Application No. 09/567,977, filed May 10, 2000, entitled, "Optical Down-converter Using Universal Frequency Translation Technology," directed to related subject matter.

Documents AC56, AP59, and AH63 were cited in an Office Action in related U.S. Patent Application No. 09/567,977, filed May 10, 2000, entitled "Optical Down-converter Using Universal Frequency Translation Technology," directed to related

subject matter. Also cited in said Office Action were Dines, J.A.B., "Smart Pixel Optoelectronic Receiver Based on a Charge Sensitive Amplifier Design," *IEEE Journal of Selected Topics in Quantum Electronics*, IEEE, Vol. 2, No. 1, pp. 117-120 (April 1996); Simoni, A. *et al.*, "A Digital Camera for Machine Vision," *20th International Conference on Industrial Electronics, Control and Instrumentation*, IEEE, pp. 879-883 (September 1994); and Stewart, R.W. and Pfann, E., "Oversampling and sigma-delta strategies for data conversion," *Electronics & Communication Engineering Journal*, IEEE, pp. 37-47 (February 1998), which have already been cited in the present application.

Documents AD56, AE56, AA57, AB57, AE64, AF64, and AC65 are co-owned patents which are directed to related subject matter.

Documents AD56, AE56, AA57, AB57, and AI59 were cited in a Notice of Allowance in related U.S. Patent Application No. 09/838,387, filed April 20, 2001, entitled "Method and System for Down-Converting and Up-Converting an Electromagnetic Signal, and Transforms for Same," directed to related subject matter. Also cited in said Notice of Allowance were U.S. Patent Nos. 5,937,013; 6,061,551; and 6,647,250, which have already been cited in the present application.

Documents AE56, AA57, AH61, and AI61 were cited in a Notice of Allowance in related U.S. Patent Application No. 09/525,615, filed March 14, 2000, entitled "Method, System, and Apparatus for Balanced Frequency Up-conversion of a Baseband Signal and 4-Phase Receiver and Transceiver Embodiments," directed to related subject matter. Also cited in said Notice of Allowance were U.S. Patent Nos. 6,091,940 and 6,370,371, which have already been cited in the present application.

Document AF56 was cited in an Office Action in related U.S. Patent Application No. 09/567,977, filed May 10, 2000, entitled, "Optical Down-converter Using Universal Frequency Translation Technology," directed to related subject matter.

Documents AC57-AF57 were cited in an Office Action in related U.S. Patent Application No. 09/567,978, filed May 10, 2000, entitled "Carrier and Clock Recovery Using Universal Frequency Translation," directed to related subject matter. Also cited in said Office Action was U.S. Patent No. 5,937,013, which has already been cited in the present application.

Documents AG57 and AH57 were cited in a Notice of Allowance in related U.S. Patent Application No. 10/330,219, filed December 30, 2002, entitled "Methods and Systems for Down-Converting Electromagnetic Signals, and Applications Thereof," directed to related subject matter.

Documents AI57, AA58-AI58, AA59, and AB59 were cited in an Office Action in related U.S. Patent Application No. 09/566,188, filed May 5, 2000, entitled "Integrated Frequency Translation and Selectivity with Gain Control Functionality, and Applications Thereof," directed to related subject matter.

Documents AC59 and AD59 were cited in an Office Action in related U.S. Patent Application No. 09/632,856, filed August 4, 2000, entitled "Wireless Local Area Network (WLAN) Using Universal Frequency Translation Technology Including Multi-Phase Embodiments and Circuit Implementation," directed to related subject matter.

Documents AE59-AG59 were cited in an Office Action in related U.S. Patent Application No. 09/569,044, filed May 10, 2000, entitled "Universal Platform Module and Methods and Apparatuses Relating Thereto Enabled by Universal Frequency

Translation Technology," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 2,057,613; 2,241,078; 2,283,575; 2,358,152; 2,410,350; 2,451,430; 2,472,798; 4,653,117; and 5,241,561, which have already been cited in the present application.

Document AH59 was cited in an Office Action in related U.S. Patent Application No. 10/289,377, filed November 7, 2002, entitled "Method and Apparatus for Reducing DC Offsets in a Communication System," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 5,471,665; 5,793,817; and 5,898,912, which have already been cited in the present application.

Documents AA60 and AB65 were cited in an Office Action in related U.S. Patent Application No. 09/590,955, filed June 9, 2000, entitled "Phase Shifting Applications of Universal Frequency Translation," directed to related subject matter.

Documents AA60 and AB60 were cited in an Office Action in related U.S. Patent Application No. 09/525,185, filed March 14, 2000, entitled "Spread Spectrum Applications of Universal Frequency Translation," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 5,339,459; 5,369,789; and 5,937,013, which have already been cited in the present application.

Documents AC60-AF60 were cited in an Office Action in related U.S. Patent Application No. 09/569,045, filed May 10, 2000, entitled "Methods and Apparatuses Relating to a Universal Platform Module and Enabled by Universal Frequency Translation Technology," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 5,339,459 and 5,557,641, which have already been cited in the present application.

Documents AG60-AI60 were cited in an Office Action in related U.S. Patent Application No. 09/590,955, filed June 9, 2000, entitled "Phase Shifting Applications of Universal Frequency Translation," directed to related subject matter. Also cited in said Office Action was U.S. Patent No. 5,339,459, which has already been cited in the present application.

Documents AA61-AC61 were cited in an Office Action in related U.S. Patent Application No. 09/550,642, filed April 14, 2000, entitled "Method and System for Down-Converting an Electromagnetic Signal, and Transforms for Same," directed to related subject matter.

Documents AD61 and AE61 were cited in an Office Action in related U.S. Patent Application No. 10/317,165, filed December 12, 2002, entitled "Method and Apparatus for Reducing DC Offsets in Communication Systems Using Universal Frequency Translation Technology," directed to related subject matter.

Document AG61 was cited in an Office Action in related U.S. Patent Application No. 09/476,093, filed January 3, 2000, entitled "Communication System Method With Multi-Mode and Multi-Band Functionality and Embodiments Thereof, Such as the Family Radio Service," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 5,937,013 and 5,790,587, which have already been cited in the present application.

Documents AA62-AC62 were cited in a Written Opinion in related PCT Application No. PCT/US03/16403, filed May 27, 2003, entitled "Method and Apparatus for DC Offset Removal in a Radio Frequency Communication Channel," directed to

related subject matter. Also cited in said Written Opinion was U.S. Patent No. 5,483,600, which has already been cited in the present application.

Documents AA62-AI62 were cited in an Office Action in related U.S. Patent Application No. 10/290,323, filed November 8, 2002, entitled "Method and Apparatus for DC Offset Removal in a Radio Frequency Communication Channel," directed to related subject matter. Also cited in said Office Action was U.S. Patent No. 5,483,600, which has already been cited in the present application.

Documents AA63-AC63 were cited in an Office Action in related U.S. Patent Application No. 09/632,857, filed August 4, 2000, entitled "Wireless Local Area Network (WLAN) Technology and Applications Including Techniques of Universal Frequency Translation," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 5,937,013; 6,014,551; 6,073,001; 6,085,073; and 6,314,279, which have already been cited in the present application.

Documents AD63-AG63 were cited in an Office Action in related U.S. Patent Application No. 09/986,764, filed November 9, 2001, entitled "Method and Apparatus for Reducing DC Offsets in a Communication System," directed to related subject matter.

Documents AI63, and AA64-AC64 were cited in a Notice of Allowance in related U.S. Patent Application No. 09/987,193, filed November 13, 2001, entitled "Method and Apparatus for a Parallel Correlator and Applications Thereof," directed to related subject matter.

Document AD64 was cited in an Office Action in related U.S. Patent Application No. 09/632,857, filed August 4, 2000, entitled "Wireless Local Area Network (WLAN)

Technology and Applications Including Techniques of Universal Frequency Translation," directed to related subject matter.

Documents AG64 and AH64 were cited in an Office Action in related U.S. Patent Application No. 10/289,377, filed November 7, 2002, entitled "Method and Apparatus for Reducing DC Offsets in a Communication System," directed to related subject matter.

Document AI64 was cited in a Notice of Allowance in related U.S. Patent Application No. 10/197,441, filed July 18, 2002, entitled "Method and System for Frequency Up-Conversion With a Variety of Transmitter Configurations," directed to related subject matter.

Document AA65 was cited in an Office Action in related U.S. Patent Application No. 10/086,250, filed March 4, 2002, entitled "Applications of Universal Frequency Translation," directed to related subject matter.

Document AD65 was cited in an Office Action in related U.S. Patent Application No. 09/569,045, filed May 10, 2000, entitled "Method and Apparatuses Relating to a Universal Platform Module and Enabled by Universal Frequency Translation Technology," directed to related subject matter.

It is noted that some of these documents could be classified in more than one of the above categories.

This statement should not be construed as a representation that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below.

- ☐ 1. Statement under 37 C.F.R. 1.704(d). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this information disclosure statement.
- ☒ 2. Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed before the mailing of a first Office Action on the merits. No statement or fee is required.
- ☐ 3. Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application.
- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ c. Attached is our PTO-2038 Credit Card Payment Form in the amount of _____ in payment of the fee under 37 C.F.R. § 1.17(p).

- ☐ 4. Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Enclosed find our PTO-2038 Credit Card Payment Form in the amount of \$_____ in payment of the fee under 37 C.F.R. § 1.17(p); in addition:
- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ 5. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance. 1138 OG 37, 38.
- ☒ 6. A concise explanation of the relevance of non-English language document AL23 appears below:
Document AL23 (DE 196 48 915 A1) appears to describe a process of frequency conversion. An English-language translation of document AL23 is enclosed as document AO59.

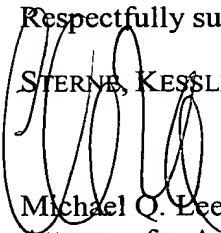
- ☒ 7. Copies of documents AL23, AN59, AO59, and AP59 are enclosed. However, in accordance with 37 C.F.R. § 1.98(a)(2), copies of the U.S. patents and patent application publications cited on the attached Form PTO-1449 are not enclosed.
- ☐ 8. Copies of the documents were cited by or submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. _____, filed _____, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).
- ☐ 9. It is expected that the examiner will review the prosecution and cited art in the parent application no. _____, in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed Form PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.


Michael Q. Lee
Attorney for Applicant
Registration No. 35,239

Date: 3/1/05

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600

359840_2.DOC



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Sorrells *et al.*

Appl. No. 09/770,675

Filed: January 29, 2001

For: **Wireless and Wired Cable
Modem Applications of
Universal Frequency
Translation Technology**

Confirmation No.: 5430

Art Unit: 2684

Examiner: Lele, Tanmay S.

Atty. Docket: 1744.0140005

Supplemental Information Disclosure Statement

Commissioner for Patents
Washington, D.C. 20231

Sir:

Listed on accompanying PTO-1449 form are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Information Disclosure Statement filed on August 16, 2002 in connection with the above-captioned application.

Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

Applicants provide the following comments regarding the documents:

Documents AG51, AH51, AD52, AH54 and AG55 are co-owned patents which are directed to related subject matter.

Document AF51 was cited in an Office Action in related U.S. Patent Application Serial No. 09/476,092, filed January 3, 2000, entitled "Analog Zero IF FM Decoder and Embodiments Thereof, Such as the Family Radio Service," directed to related subject matter. Also cited in the Office Action were U.S. Patent Nos. 5,600,680 and 5,606,731, which have already been cited in the present application in the Information Disclosure Statement, filed August 16, 2002.

Documents AL19, AM19 and AB0 were cited in an International Search Report in related PCT Appl. No. PCT/US01/08969, filed March 22, 2001, entitled, "Integrated Frequency Translation and Selectivity with a Gain Control Functionality, and Applications Thereof," directed to related subject matter. Also cited in the International Search Report were U.S. Patent Nos. 4,888,557 and 5,801,654, and PCT Publication Nos. WO 96/02977 and WO 96/39750, which have already been cited in the present application in the Information Disclosure Statement, filed August 16, 2002.

Document AC50 was cited in an Office Action in related U.S. Patent Application Serial No. 09/376,509, filed August 18, 1999, entitled "Method and System for Ensuring Reception of a Communications Signal," directed to related subject matter.

Documents AD50-AF50, AH50, AA51 and AD51 were cited in an Office Action in related U.S. Patent Appl. No. 09/476,330, filed January 3, 2000, entitled, "Multi-Mode, Multi-Band Communication System," directed to related subject matter.

Document AG50 was cited in an Office Action in related U.S. Patent Appl. No. 09/567,963, filed May 10, 2000, entitled, "Frequency Synthesizer Using Universal Frequency Translation Technology," directed to related subject matter.

Documents AI50, AB51 and AC51 were cited in an Office Action in related U.S. Patent Appl. No. 09/526,041, filed March 14, 2000, entitled, "DC Offset, Re-radiation, and I/Q Solutions Using Universal Frequency Translation Technology," directed to related subject matter.

Documents AI51 and AN58-AP58 were cited in an Office Action in related U.S. Patent Appl. No. 09/567,977, filed May 10, 2000, entitled, "Optical Down-converter Using Universal Frequency Translation Technology," directed to related subject matter.

Documents AC52 and AJ23 were cited in an Invitation to Pay Additional Fees in related PCT Appl. No. PCT/US01/43077, filed November 14, 2001, entitled "Method and Apparatus for a Parallel Correlator and Applications Thereof," directed to related subject matter.

Documents AE52-AH52 were cited in an Office Action in related U.S. Patent Application No. 09/986,764, filed November 9, 2001, entitled "Method and Apparatus for Reducing DC Offsets in a Communication System," directed to related subject matter.

Documents AI52 and AA53-AC53 were cited in an International Search Report in related PCT Application No. PCT/US02/35861, filed November 8, 2002, entitled "Method and Apparatus for Reducing DC Offsets in a Communication System," directed to related subject matter.

Documents AD53-AI53 and AA54 were cited in an Office Action in related U.S. Patent Application No. 09/476,093, filed January 3, 2000, entitled "Family Radio System with Multi-Mode and Multi-Band Functionality," directed to related subject matter.

Documents AB54-AE54 were cited in an International Search Report in related PCT Application No. PCT/US03/16403, filed May 27, 2003, entitled "Method and Apparatus for DC Offset Removal in a Radio Frequency Communication Channel," directed to related subject matter.

Documents AF54 and AG54 were cited in an Office Action in related U.S. Patent Application No. 09/550,642, filed April 14, 2000, entitled "Method and System for Down-converting an Electromagnetic Signal, and Transforms for Same," directed to related subject matter.

Documents AI54 and AA55-AD55 were cited in an Office Action in related U.S. Patent Application No. 09/548,923, filed April 13, 2000, entitled "Method and System for Frequency Conversion with Modulation Embodiments," directed to related subject matter. Also cited in the Office Action were U.S. Patent Nos. 6,091,940 and 6,353,735, which have already been cited in the present application in the Information Disclosure Statement, filed August 16, 2002.

Documents AE55 and AF55 were cited in an Office Action in related U.S. Patent Application No. 09/543,867, filed April 5, 2000, entitled "Automated Meter Reader Applications of Universal Frequency Translation," directed to related subject matter.

Document AJ20 was cited in an Office Action in related Japanese Patent Application Serial No. 2000-577,764, filed June 21, 2000, entitled "Applications of Universal Frequency Translation," directed to related subject matter. Also cited in the Office Action was

Japanese Patent Publication No. 58-133004, which has already been cited in the present application in the Information Disclosure Statement, filed August 16, 2002.

Documents AK20, AL20, AJ21, AK21, AL21, AP56 and AQ56 were cited in an International Search Report in related PCT Appl. No. PCT/US01/12086, filed April 13, 2001, entitled, "Frequency Converter," directed to related subject matter. Also cited in the Office Action was U.S. Patent No. 5,844,449, which has already been cited in the present application in the Information Disclosure Statement, filed August 16, 2002.

Documents AM21 and AJ22 were cited in an Office Action in related Japanese Patent Application No. 2000-577,765, filed June 21, 2000, entitled "Method and System for Ensuring Reception of a Communications Signal," directed to related subject matter. Also cited in the Office Action were Japanese Patent Publication Nos. 56-114451, 8-32556 and 8-139524, which have already been cited in the present application in the Information Disclosure Statement, filed August 16, 2002.

Documents AK22-AM22, AA52, AB52 and AQ58 were cited in an International Search Report in related PCT Appl. No. PCT/US01/15555, filed May 16, 2001, entitled, "Apparatus, System, and Method for Down-Converting and Up-Converting Electromagnetic Signals," directed to related subject matter. Also cited the International Search Report were U.S. Patent Nos. 4,888,557, 5,454,007, 5,640,698 and 5,705,949, and PCT Publication No. WO 96/02977, which have already been cited in the present application in the Information Disclosure Statement, filed August 16, 2002.

Document AK23 was cited in an Office Action in related Japanese Patent Application No. 2000-577,764, filed June 21, 2000, entitled "Applications of Frequency Translation," directed to related subject matter.

The other documents in the PTO-1449 do not fall within the above categories.

It is noted that some of these documents could be classified in more than one of the above categories.

This statement should not be construed as a representation that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below.

- ☐ 1. Statement under 37 C.F.R. 1.704(d). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this information disclosure statement.
- ☒ 2. Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.
- ☐ 3. Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application.
 - ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
 - ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a

communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

- ☐ c. Attached is our PTO-2038 Credit Card Payment Form in the amount of _____ in payment of the fee under 37 C.F.R. § 1.17(p).
- ☐ 4. Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Attached is our PTO-2038 Credit Card Payment Form **[OR]** Check No. _____ in the amount of \$ _____ in payment of the fee under 37 C.F.R. § 1.17(p); in addition:
 - ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
 - ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ 5. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance. 1138 OG 37, 38.

- 6. A concise explanation of the relevance of the non-English language documents appears below:

Document AJ20 (JP 60-130203) appears to describe a frequency converter. A copy of the English language abstract of document AJ20 is enclosed as document AO56.

Document AK20 (DE 196 27 640 A1) appears to describe a mixer. Document AK20 is a counterpart German application of U.S. Patent No. 5,680,078, which has already been cited in the present application in the Information Disclosure Statement, filed August 16, 2002.

Document AL20 (EP 0 087 336 A1) appears to describe a transistorized mixer for microwave transmitters. The granted version of document AL20 is cited as document AM20 (EP 0 087 336 B1) and contains an English-language version of the claims.

Document AK21 (FR 2 669 787 A1) appears to describe a symmetrical super high frequency mixer. A copy of the English-language abstract of document AK21 is enclosed as document AR56.

Document AM21 (JP 61-30821) appears to describe a squelch device. A copy of the English-language abstract of document AL21 is enclosed as document AP57.

Document AJ22 (JP 5-327356) appears to describe a frequency converter. A copy of the English-language abstract of document AJ22 is enclosed as document AQ57.

Document AK23 (JP 9-36664) appears to describe a frequency conversion circuit. A copy of the English-language abstract of document AK23 is enclosed as document AR58.

- 7. Copies of the documents listed were submitted to the Patent Office in Information Disclosure Statements that comply with 37 C.F.R. § 1.98(a)-(c) in Application No. _____, filed _____, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449 form, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,


STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Michael Q. Lee
Attorney for Applicants
Registration No. 35,239

Date: 11/20/03

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600

::ODMA\MHODMA\SKGF_DC1;199814;1

FORM PTO-144

ATTY. DOCKET NO.
1744.0140005APPLICATION NO.
09/770,675APPLICANTS
Sorrells et al.FILING DATE
January 29, 2001GROUP
2684

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB50	5,633,815	05/1997	Young			
	AC50	3,246,084	04/1966	Kryter			
	AD50	3,702,440	11/1972	Moore			
	AE50	3,767,984	10/1973	Shinoda et al.			
	AF50	3,852,530	12/1974	Shen			
	AG50	4,220,977	09/1980	Yamanaka			
	AH50	5,016,242	05/1991	Tang			
	AI50	5,937,013	08/1999	Lam et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						
	AK						
	AL19	EP 0 254 844 A2	02/1988	EP			N/A
	AM19	EP 0 632 577 A1	01/1995	EP			N/A

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO	<u>56</u>	Translation of Japanese Patent Publication No. 60-130203, 3 pages (July 11, 1985- Date of publication of application).
	AP	<u>56</u>	Razavi, B., "A 900-MHz/1.8-GHz CMOS Transmitter for Dual-Band Applications," <i>Symposium on VLSI Circuits Digest of Technical Papers</i> , IEEE, pp. 128-131 (1998).
	AQ	<u>56</u>	Ritter, G.M., "SDA, A New Solution for Transceivers," <i>16th European Microwave Conference</i> , Microwave Exhibitions and Publishers, pp. 729-733 (September 8, 1986).
	AR	<u>56</u>	DIALOG File 351 (Derwent WPI) English Language Patent Abstract for FR 2 669 787, 1 page (May 29, 1992- Date of publication of application).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

::ODMA\HODMA\SKGF_DC1;199776;1

FORM PTO-1449

ATTY. DOCKET NO.
1744.001000CAPPLICATION NO.
09/567,978APPLICANTS
Smith et al.FILING DATE
May 10, 2000GROUP
2685

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA51	6,014,551	01/2000	Pesola et al.			
	AB51	6,073,001	06/2000	Sokoler			
	AC51	6,085,073	07/2000	Palermo et al.			
	AD51	6,400,963 B1	06/2002	Glöckler et al.			
	AE51	6,230,000 B1	05/2001	Tayloe			
	AF51	5,483,695	01/1996	Pardoen			
	AG51	6,542,722 B1	04/2003	Sorrells et al.			
	AH51	6,560,301 B1	05/2003	Cook et al.			
	AI51	6,098,046	08/2000	Cooper et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ20	JP 60-130203	07/1985	JP			Yes (Doc. AO56)
	AK20	DE 196 27 640 A1	01/1997	DE			No
	AL20	EP 0 087 336 A1	08/1983	EP			No
	AM20	EP 0 087 336 B1	07/1986	EP			No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AN	<u>57</u>	Akos, D.M. et al., "Direct Bandpass Sampling of Multiple Distinct RF Signals," <i>IEEE Transactions on Communications</i> , IEEE, Vol. 47, No. 7, pp. 983-988 (July 1999).
	AO	<u>57</u>	Patel, M. et al., "Bandpass Sampling for Software Radio Receivers, and the Effect of Oversampling on Aperture Jitter," <i>VTC 2002, IEEE</i> , pp. 1901-1905 (2002).
	AP	<u>57</u>	English-language Abstract of Japanese Patent Publication No. 61-030821, from http://www1.ipdl.jpo.go.jp , 1 Page (February 13, 1986- Date of publication of application).
	AQ	<u>57</u>	English-language Abstract of Japanese Patent Publication No. 05-327356, 1 from http://www1.ipdl.jpo.go.jp , Page (December 10, 1993 - Date of publication of application).
	AR	<u>57</u>	Tayloe, D., "A Low-noise, High-performance Zero IF Quadrature Detector/Preamplifier," <i>RF Design</i> , Primedia Business Magazines & Media, Inc., pp. 58, 60, 62 and 69 (March 2003).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

::ODMA\HODMA\SKGF_DC1;199776;1

FORM PTO-1449

ATTY. DOCKET NO.
1744.001000CAPPLICATION NO.
09/567,978APPLICANTS
Smith et al.FILING DATE
May 10, 2000GROUP
2685

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA52	5,564,097	10/1996	Swanke			
	AB52	5,898,912	04/1999	Heck et al.			
	AC52	4,660,164	04/1987	Leibowitz			
	AD52	6,580,902 B1	06/2003	Sorrells et al.			
	AE52	4,857,928	08/1989	Gailus et al.			
	AF52	5,389,839	02/1995	Heck			
	AG52	5,471,665	11/1995	Pace et al.			
	AH52	6,327,313 B1	12/2001	Traylor et al.			
	AI52	5,751,154	05/1998	Tsugai			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AJ21	EP 0 789 449 A2 & A3	08/1997	EP			N/A
	AK21	FR 2 669 787 A1	05/1992	FR			No
	AL21	GB 2 324 919 A	11/1998	GB			N/A
	AM21	JP 61-30821	02/1986	JP			No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AN	<u>58</u>	Dines, J.A.B., "Smart Pixel Optoelectronic Receiver Based on a Charge Sensitive Amplifier Design," <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , IEEE, Vol. 2, No. 1, pp. 117-120 (April 1996).
	AO	<u>58</u>	Simoni, A. et al., "A Digital Camera for Machine Vision," <i>20th International Conference on Industrial Electronics, Control and Instrumentation</i> , IEEE, pp. 879-883 (September 1994).
	AP	<u>58</u>	Stewart, R.W. and Pfann, E., "Oversampling and sigma-delta strategies for data conversion," <i>Electronics & Communication Engineering Journal</i> , IEEE, pp. 37-47 (February 1998).
	AQ	<u>58</u>	Rudell, J.C. et al., "A 1.9-GHz Wide-Band IF Double Conversion CMOS Receiver for Cordless Telephone Applications," <i>IEEE Journal of Solid-State Circuits</i> , IEEE, Vol. 32, No. 12, pp. 2071-2088 (December 1997).
	AR	<u>58</u>	English-language Abstract of Japanese Patent Publication No. 09-036664, from http://www1.ipdl.jpo.go.jp , 2 Pages (February 7, 1997 - Date of publication of application).

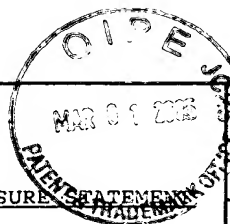
EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

::ODMA\HODMA\SKGF_DC1;199776;1

FORM PTO-1449

ATTY. DOCKET NO.
744.001000CAPPLICATION NO.
09/567,978APPLICANTS
Smith et al.FILING DATE
May 10, 2000GROUP
2685

SUPPLEMENTAL INFORMATION DISCLOSURE

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA53	5,793,817	08/1998	Wilson			
	AB53	6,225,848 B1	05/2001	Tilley <i>et al.</i>			
	AC53	6,313,685 B1	11/2001	Rabii			
	AD53	3,614,627	10/1971	Runyan <i>et al.</i>			
	AE53	3,940,697	02/1976	Morgan			
	AF53	4,016,366	04/1977	Kurata			
	AG53	4,045,740	08/1977	Baker			
	AH53	4,115,737	09/1978	Hongu <i>et al.</i>			
	AI53	5,710,992	01/1998	Sawada <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ22	JP 5-327356	12/1993	JP			No
	AK22	EP 0 643 477 A2 & A3	03/1995	EP			N/A
	AL22	EP 0 877 476 A1	11/1998	EP			N/A
	AM22	EP 0 977 351 A1	02/2000	EP			N/A

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO		
	AP		
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

::ODMA\HODMA\SKGF_DC1;199776;1

FORM PTO-1449

MAR 01 2000

ATTY. DOCKET NO.
1744.001000CAPPLICATION NO.
09/567,978APPLICANTS
Smith et al.FILING DATE
May 10, 2000GROUP
2685

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA54	5,790,587	08/1998	Smith <i>et al.</i>			
	AB54	4,740,675	04/1988	Brosnan <i>et al.</i>			
	AC54	5,483,600	01/1996	Werrbach			
	AD54	6,011,435	01/2000	Takeyabu <i>et al.</i>			
	AE54	6,321,073 B1	11/2001	Luz <i>et al.</i>			
	AF54	6,026,286	02/2000	Long			
	AG54	6,178,319 B1	01/2001	Kashima			
	AH54	6,634,555 B1	10/2003	Sorrells <i>et al.</i>			
	AI54	3,736,513	05/1973	Wilson			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AJ23	WO 00/31659 A1	06/2000	PCT			N/A
	AK23	JP 9-36664	02/1997	JP			No
	AL						
	AM						

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO		
	AP		
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

::ODMAMHODMA\SKGF_DC1;199776;1

FORM PTO-1449

ATTY. DOCKET NO.
1744.001000CAPPLICATION NO.
09/567,978APPLICANTS
Smith et al.FILING DATE
May 10, 2000GROUP
2685

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA55	4,488,119	12/1984	Marshall			
	AB55	4,633,510	12/1986	Suzuki et al.			
	AC55	5,369,789	11/1994	Kosugi et al.			
	AD55	5,416,449	05/1995	Joshi			
	AE55	5,438,329	08/1995	Gastouniotis et al.			
	AF55	6,611,569 B1	08/2003	Schier et al.			
	AG55	6,647,250 B1	11/2003	Bultman et al.			
	AH						
	AI						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						
	AK						
	AL						
	AM						

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO		
	AP		
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

::ODMA\HODMA\SKGF_DC1;199776;1



SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
1744.0140005

APPLICATION NO.
09/770,675

FIRST NAMED INVENTOR
David SORRELLS

FILING DATE
January 29, 2001

ART UNIT
2685

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH55	5,682,099	10/1997	Thompson <i>et al.</i>			
	AI55	6,094,084	07/2000	Abou-Allam <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL23	DE 196 48 915 A1	06/1998	DE			Yes (Doc. AO59)
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	AN	<u>59</u>	Simoni, A. <i>et al.</i> , "A Single-Chip Optical Sensor with Analog Memory for Motion Detection," <i>IEEE Journal of Solid-State Circuits</i> , IEEE, Vol. 30, No. 7, pp. 800-806 (July 1995).
	AO	<u>59</u>	English Translation of German Patent Publication No. DE 196 48 915 A1, 10 pages.
	AP	<u>59</u>	Deboo, Gordon J., <i>Integrated Circuits and Semiconductor Devices</i> , 2 nd Edition, McGraw-Hill, Inc., pp. 41-45 (1977).
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
1744.0140005APPLICATION NO.
09/770,675FIRST NAMED INVENTOR
David SORRELLSFILING DATE
January 29, 2001ART UNIT
2685

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA56	6,067,329	05/2000	Kato <i>et al.</i>			
	AB56	6,516,185	02/2003	MacNally			
	AC56	6,608,647	08/2003	King			
	AD56	6,687,493 B1	02/2004	Sorrells <i>et al.</i>			
	AE56	6,694,128 B1	02/2004	Sorrells <i>et al.</i>			
	AF56	6,031,217	02/2000	Aswell <i>et al.</i>			
	AG56	5,955,992	09/1999	Shattil			
	AH56	5,999,561	12/1999	Naden <i>et al.</i>			
	AI56	6,686,879 B2	02/2004	Shattil			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

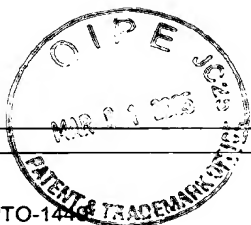
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO		
	AP		
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1446

SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
1744.0140005APPLICATION NO.
09/770,675FIRST NAMED INVENTOR
David SORRELLSFILING DATE
January 29, 2001ART UNIT
2685

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA57	6,704,549 B1	03/2004	Sorrells <i>et al.</i>			
	AB57	6,704,558 B1	03/2004	Sorrells <i>et al.</i>			
	AC57	5,490,176	02/1996	Peltier			
	AD57	5,970,053	10/1999	Schick <i>et al.</i>			
	AE57	6,078,630	06/2000	Prasanna			
	AF57	6,600,911 B1	07/2003	Morishige <i>et al.</i>			
	AG57	5,179,731	01/1993	Tränkle <i>et al.</i>			
	AH57	5,589,793	12/1996	Kassapian			
	AI57	4,510,467	04/1985	Chang <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO		
	AP		
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

359837_1.DOC



FORM PTO-1740

ATTY. DOCKET NO.
1744.0140005APPLICATION NO.
09/770,675FIRST NAMED INVENTOR
David SORRELLSFILING DATE
January 29, 2001ART UNIT
2685SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA58	4,772,853	09/1988	Hart			
	AB58	4,972,436	11/1990	Halim <i>et al.</i>			
	AC58	5,012,245	04/1991	Scott <i>et al.</i>			
	AD58	5,422,909	06/1995	Love <i>et al.</i>			
	AE58	5,440,311	08/1995	Gallagher <i>et al.</i>			
	AF58	5,926,513	07/1999	Suominen <i>et al.</i>			
	AG58	5,995,030	11/1999	Cabler			
	AH58	6,047,026	04/2000	Chao <i>et al.</i>			
	AI58	6,049,573	04/2000	Song			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO		
	AP		
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
1744.0140005APPLICATION NO.
09/770,675FIRST NAMED INVENTOR
David SORRELLSFILING DATE
January 29, 2001ART UNIT
2685

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA59	6,076,015	06/2000	Hartley <i>et al.</i>			
	AB59	6,144,331	11/2000	Jiang			
	AC59	6,018,553	01/2000	Sanielevici <i>et al.</i>			
	AD59	6,317,589 B1	11/2001	Nash			
	AE59	5,058,107	10/1991	Stone <i>et al.</i>			
	AF59	5,757,858	05/1998	Black <i>et al.</i>			
	AG59	6,531,979 B1	03/2003	Hynes			
	AH59	6,018,262	01/2000	Noro <i>et al.</i>			
	AI59	4,761,798	08/1988	Griswold, Jr. <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO		
	AP		
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
1744.0140005APPLICATION NO.
09/770,675FIRST NAMED INVENTOR
David SORRELLSFILING DATE
January 29, 2001ART UNIT
2685

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA60	5,982,315	11/1999	Bazarjani <i>et al.</i>			
	AB60	6,459,721 B1	10/2002	Mochizuki <i>et al.</i>			
	AC60	6,151,354	11/2000	Abbey			
	AD60	6,169,733 B1	01/2001	Lee			
	AE60	6,363,262 B1	03/2002	McNicol			
	AF60	6,697,603 B1	02/2004	Lovinggood <i>et al.</i>			
	AG60	5,282,222	01/1994	Fattouche <i>et al.</i>			
	AH60	5,949,827	09/1999	DeLuca <i>et al.</i>			
	AI60	6,014,176	01/2000	Nayebi <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO		
	AP		
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-770

SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
1744.0140005APPLICATION NO.
09/770,675FIRST NAMED INVENTOR
David SORRELLSFILING DATE
January 29, 2001ART UNIT
2685

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA61	5,678,226	10/1997	Li <i>et al.</i>			
	AB61	5,760,632	06/1998	Kawakami <i>et al.</i>			
	AC61	6,160,280	12/2000	Bonn <i>et al.</i>			
	AD61	5,481,570	01/1996	Winters			
	AE61	5,745,846	04/1998	Myer <i>et al.</i>			
	AF61	5,345,239	09/1994	Madni <i>et al.</i>			
	AG61	4,132,952	01/1979	Hongu <i>et al.</i>			
	AH61	5,260,973	11/1993	Watanabe			
	AI61	6,307,894 B2	10/2001	Eidson <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO		
	AP		
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1446

SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
1744.0140005APPLICATION NO.
09/770,675FIRST NAMED INVENTOR
David SORRELLSFILING DATE
January 29, 2001ART UNIT
2685

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA62	6,091,289	07/2000	Song <i>et al.</i>			
	AB62	6,437,639 B1	08/2002	Nguyen <i>et al.</i>			
	AC62	2002/0037706 A1	03/2002	Ichihara			
	AD62	4,441,080	04/1984	Saari			
	AE62	4,873,492	10/1989	Myer			
	AF62	5,697,074	12/1997	Makikallio <i>et al.</i>			
	AG62	5,784,689	07/1998	Kobayashi			
	AH62	6,335,656 B1	01/2002	Goldfarb <i>et al.</i>			
	AI62	6,690,232 B2	02/2004	Ueno <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO		
	AP		
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

359837_1.DOC



FORM PTO-1449

SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.

1744.0140005

APPLICATION NO.

09/770,675

FIRST NAMED INVENTOR

David SORRELLS

FILING DATE

January 29, 2001

ART UNIT

2685

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA63	5,636,140	06/1997	Lee <i>et al.</i>			
	AB63	6,366,622 B1	04/2002	Brown <i>et al.</i>			
	AC63	6,600,795 B1	07/2003	Ohta <i>et al.</i>			
	AD63	4,250,458	02/1981	Richmond <i>et al.</i>			
	AE63	5,760,629	06/1998	Urabe <i>et al.</i>			
	AF63	6,084,465	07/2000	Dasgupta			
	AG63	6,204,789 B1	03/2001	Nagata			
	AH63	6,064,054	05/2000	Waczynski <i>et al.</i>			
	AI63	5,218,562	06/1993	Basehore <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO		
	AP		
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
1744.0140005APPLICATION NO.
09/770,675FIRST NAMED INVENTOR
David SORRELLSFILING DATE
January 29, 2001ART UNIT
2685

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA64	5,239,496	08/1993	Vancraeynest			
	AB64	5,896,304	04/1999	Tiemann <i>et al.</i>			
	AC64	6,005,903	12/1999	Mendelovicz			
	AD64	5,834,979	11/1998	Yatsuka			
	AE64	6,798,351 B1	09/2004	Sorrells <i>et al.</i>			
	AF64	6,813,485 B2	11/2004	Sorrells <i>et al.</i>			
	AG64	5,410,270	04/1995	Rybicki <i>et al.</i>			
	AH64	6,509,777 B2	01/2003	Razavi <i>et al.</i>			
	AI64	5,982,329	11/1999	Pittman <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO		
	AP		
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

ATTY. DOCKET NO.

1744.0140005

APPLICATION NO.

09/770,675

FIRST NAMED INVENTOR

David SORRELLS

FILING DATE

January 29, 2001

ART UNIT

2685

SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA65	6,208,636 B1	03/2001	Tawil <i>et al.</i>			
	AB65	3,614,630	10/1971	Rorden			
	AC65	6,836,650 B2	12/2004	Sorrells <i>et al.</i>			
	AD65	5,844,868	12/1998	Takahashi <i>et al.</i>			
	AE						
	AF						
	AG						
	AH						
	AI						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	AN		
	AO		
	AP		
	AQ		
	AR		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.